



2016 Major Automated Information System Annual Report



Tactical Mission Command (TMC)

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations for MAIS Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ADM - Acquisition Decision Memorandum
AoA - Analysis of Alternatives
ATO - Authority To Operate
APB - Acquisition Program Baseline
BY - Base Year
CAE - Component Acquisition Executive
CDD - Capability Development Document
CPD - Capability Production Document
DAE - Defense Acquisition Executive
DoD - Department of Defense
DoDAF - DoD Architecture Framework
FD - Full Deployment
FDD - Full Deployment Decision
FY - Fiscal Year
IA - Information Assurance
IATO - Interim Authority to Operate
ICD - Initial Capability Document
IEA - Information Enterprise Architecture
IOC - Initial Operational Capability
IP - Internet Protocol
IT - Information Technology
KPP - Key Performance Parameter
\$M - Millions of Dollars
MAIS - Major Automated Information System
MAIS OE - MAIS Original Estimate
MAR – MAIS Annual Report
MDA - Milestone Decision Authority
MDD - Materiel Development Decision
MILCON - Military Construction
MS - Milestone
N/A - Not Applicable
O&S - Operating and Support
OSD - Office of the Secretary of Defense
PB - President's Budget
RDT&E - Research, Development, Test, and Evaluation
SAE - Service Acquisition Executive
TBD - To Be Determined
TY - Then Year
U.S.C- United States Code
USD(AT&L) - Under Secretary of Defense for Acquisition, Technology, & Logistics

Program Information

Program Name

Tactical Mission Command (TMC)

DoD Component

Army

Responsible Office

Program Manager

Mr. Robert Tisch
Building 6007
Aberdeen Proving Ground, MD 21005

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References

MAIS Original Estimate

December 31, 2007

Approved APB

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated August 2, 2013

Program Description

Tactical Mission Command (TMC) is a family of systems with an enduring mission to provide mission command computing capabilities to Army commanders and their staffs, consisting primarily of a user-customizable Common Operating Picture (COP) enabled with real-time collaboration. These capabilities, together with Voice-Over-Internet-Protocol, combine to provide real-time situational awareness and decision support capabilities across the formation (battalion through Army Service Component Command). A key component of the Mission Command (MC) capability that TMC delivers is the ability to layer information from multiple warfighting functions on the same map display and share that among command posts, allowing all parties to have a common view with the command. While these capabilities are currently provided by Command Post of the Future (CPOF), TMC is now engaged in transitioning to the web-based Command Post Computing Environment (CPCE).

TMC FAMILY OF SYSTEMS

Legacy Products:

- CPOF has been the Army's primary mission command software system since 2007. CPOF gives commanders and their staffs the ability to enhance operational effectiveness by enabling broad human collaboration and providing a wide array of real-time situational awareness tools in support of decision making, planning, rehearsal, and execution management.

- Battle Command Common Services (BCCS) is the heart of interoperability for all MC Systems with the Common Operating Environment. The BCCS architecture is designed for scalability both from a hardware and baseline software architecture perspective, and can be adopted to support various tactical unit standard operating procedures, processes, and integration needs.

- Maneuver Control System (MCS) Version 6.4 as a stand-alone client has reached the end of its service life. It is migrating out of the Army Architecture in accordance with Chief Information Officer G6 direction and will be removed from the MC baseline.

- Battle Command Sustainment Support System (BCS3) is being fully divested in second quarter FY 2016.

Developmental Products:

- TacApps represents the complete porting of all MCS 6.4 and BCS3 CPD requirements to the web based environment in support of Army objectives. TacApps also aims to minimize administrative burdens on the user and simplify the overall MC collaborative experience.

- WAVE is the voice communications solution for TMC products, and also serves as a voice bridging technology allowing disparate voice solutions to communicate seamlessly over the network. WAVE is slated to replace the older Ventrilo technology resident within CPOF.

- Command Web Collaborative Data Infrastructure gives the non-provisioned user a web-based COP viewer and data management capability. It is a collaborative, visualization and planning application that also provides a common map display application--a foundational component for all map-centric web applications developed by stakeholders within the CPCE.

Business Case

Business Case Analysis, including the Analysis of Alternatives (AoA): Key functional requirements for this program were articulated in the MCS “Good Enough” Operational Requirements Document (ORD) dated March 23, 2004, the current Capabilities Production Document (MCS 6.4 CPD), and the Joint Requirements Oversight Council (JROC) approval on June 23, 2008, and are summarized as follows: Serves as the TMC system for commanders and staffs from battalion through army service component command and provides essential C2 capability through a collection of maneuver staff tools, collaborative capabilities, and enterprise services.

Prior to achieving a planned Milestone III and IOC, a program evaluation and restructure was completed. As part of the program evaluation, the schedule, performance, and costs were reviewed. The AoA considered maintenance of MCS 6.3 hardware and software; upgrade the existing system with enhancements to security, interoperability, and net-centricity, as well as the development of a new version of software. The AoA resulted in the upgrade of existing systems being approved as the selected alternative on December 16, 2004. As a result, MCS 6.4 was designated the version in support of the greater ABCS Version 6.4. An Economic Analysis of the designated version of MCS was later conducted on June 4, 2005. The program progressed from this point and successfully achieved its Milestone C (Full Rate Production Decision) on June 29, 2005, at which time a new acquisition program baseline (APB) was established. The program continues to progress in accordance with the MCS 6.4 CPD which was approved on June 23, 2008, and the most current APB which was approved on February 28, 2008. In addition, on November 12, 2003, the Army Chief of Staff approved MCS Version 6.4 as “Good Enough” to support Milestone C.

Firm, Fixed-Price Feasibility: The determination of the development/integration contract type was based on cost and technical risk associated with satisfying the requirement. A new IDIQ contract was awarded to General Dynamics on September 29, 2011 for CPOF Development which will include Cost Plus Fixed Fee, Cost Plus Award Fee and Firm Fixed-Price Task Orders.

The Milestone Decision Authority has selected a cost-type contract because development tasks are sufficiently complex and technically challenging that it is impossible to precisely estimate the cost of satisfying the requirements, and it is not practicable to reduce cost and technical risk to a level that would permit the use of a fixed-price contract.

Independent Cost Estimate: The program has not experienced a Critical Change which would induce the independent cost estimate required by 10 U.S.C. 2334(a)(6).

Certification of Business Case Alignment; Explanation: I certify that all technical and business requirements have been reviewed and validated to ensure alignment with the business case. This certification is based on the ORD, AoA, Chief of Staff memo, and Economic Analysis described above.

The above information was certified and provided to Congress in the 2011 MAIS Annual Report.

Business Case Certification:

Name: BG N. Lee S. Price, PEO C3T

Business Case Changes

There is no significant change to the Business Case since it was last certified.

Program Status

On Track: The program is substantially on track to remain within the schedule, cost and performance thresholds identified in the Original Estimate; there have been no Significant or Critical Changes (as defined by 10 U.S.C. Chapter 144A) reported since the previous Quarterly Report.

Schedule

Schedule Events		
Events	Original Estimate Objective	Current Estimate (Or Actual)
Milestone A ¹	N/A	N/A
Milestone B	Aug 1999	Aug 1999
First Unit Equipped (MCS 6.4)	Mar 2005	Mar 2005
Milestone C (Full Rate Production Decision)	Jun 2005	Jun 2005
Initial Operational Capability	Jun 2005	Jun 2005
First Unit Equipped (CPOF Tech Insertion)	Jan 2006	Jan 2006
Fielding Decision (MCS/CPOF) ²	Jan 2010	Jan 2009
Full Deployment ³	Sep 2018	Dec 2018

Memo

1/ Milestone A - Granted under the Legacy MCS program.

2/ Fielding Decision (MCS/CPOF) – The Program Executive Officer for Command, Control and Communications - Tactical, approved fielding of the current baseline solution in January 2009 through the quarterly release process. A safety and suitability statement was also issued by the user, based on developmental and operational testing conducted while in theatre.

3/ FD – Defined as completion of initial fielding of equipment, plus required refresh with increased capability to achieve standardization (of the baseline) across the entire Army in FY 2019.

Acronyms and Abbreviations

CPOF - Command Post of the Future
MCS - Maneuver Control System

Performance

Performance Characteristics		
Original Estimate Objective/Threshold		Current Estimate (Or Actual)
KPP-1-NET READY:		
Support Net Centric Military Operations¹		
Fully support all operational activities. Must satisfy requirements for Net-Centric operations by complying with DISR mandated GIG IT standards and profiles, with DISR mandated GIG KIPs, and with NCOW RM Enterprise Services.	Fully support joint operational activities. Must satisfy requirements for transition to Net-Centric operations by complying with DISR mandated GIG IT standards and profiles, with DISR mandated GIG KIPs, and with NCOW RM Enterprise Services.	Met Threshold
Provide ability to enter and be managed in the network and exchange data in a secured manner¹		
Must satisfy information assurance requirements and receive an ATO	Must satisfy information assurance requirements and receive an IATO	Met Threshold
Continuously provide survivable, interoperable, secure and operationally effective information exchanges¹		
Must provide for operationally effective information exchange and mission critical performance and information assurance attributes specified in the applicable joint and system architectural views	Same as Objective	Met Threshold
KPP-2-DISPLAY THE COMMON OPERATIONAL PICTURE (COP):		
Display the COP consisting of the following:¹		
Friendly forces determined by the commander including subordinate and supporting units at least one level up and two levels down. Display enemy neutral and unknown forces/entities designated by the commander.	Same as Objective	Met Threshold
Interoperable with Joint and Coalition Systems¹		
Display overlays created by MCS and other ABCS Systems Fully interoperable with USMC systems, GCCS-M, and TBMCS. Exchange information with coalition digital C2 systems.	Display overlays created by MCS and other ABCS Systems Exchange information with USMC systems consist of: Free text; spot reports; SALUTE reports; basic weather reports, NBC 1 reports; threat warnings; unit position reports; field orders & friendly unit overlays; and plans and orders.	Met Threshold
KPP-3-DISSEMINATE (CREATE & EXCHANGE) ORDERS:		
MCS will create and exchange OPORDs, OPLANs, WARNOs, FRAGOs and Graphics¹		
With future Army and Joint C2 Systems. With	All ABCS except FBCB2-BFT. With C2PC (for joint	Met

designated coalition systems	interoperability)	Threshold
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Memo

1/ "Original Estimate (Objective)" and "Original Estimate (Threshold)" values represent the CPD as approved by the Army Requirements Oversight Council, April 2006; Joint Requirements Oversight Council approved June 2008.

Acronyms and Abbreviations

ABCS - Army Battle Command Systems
C2 - Command and Control
C2PC - Command and Control Personal Computer
COP - Common Operational Picture
DISR - Department of Defense Information Technology Standards Registry
FBCB2-BFT - Force XXI Battle Command Brigade and Below - Blue Force Tracking
FRAGO - Fragmentary Orders
GCCS-M - Global Command and Control System - Marine
GIG-IT - Global Information Grid - Information Technology
GIG-KIPs - Global Information Grid - Key Interface Profiles
MCS - Maneuver Control System
NBC - Nuclear, Biological, and Chemical
NCOW RM - Net-Centric Operations and Warfare Reference Model
OPLAN - Operations Plan
OPORD - Operations Order
SALUTE - Size, Activity, Location, Unit, Time and Equipment
TBMCS - Theater Battle Management Core Systems
USMC - United States Marine Corps
WARNO - Warning Order

Cost

TMC				
Appropriation Category	BY 2005 \$M		TY \$M	
	Original Estimate	Current Estimate Or Actual	Original Estimate	Current Estimate Or Actual
Acquisition Cost				
RDT&E	286.2	384.5	325.9	439.3
Procurement	1422.1	1483.2	1526.6	1752.8
MILCON	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0
Total Acquisition Cost	1708.3	1867.7	1852.5	2192.1
Operating and Support (O&S) Cost				
Total Operating and Support (O&S) Cost	94.6	96.4	116.5	123.4
Total Life-Cycle Cost				
Total Life-Cycle Cost	1802.9	1964.1	1969.0	2315.5

Cost Notes

1. This report and the Budget Year IT-1 Exhibit cover different time periods thus the costs will not match.
2. Then Year dollars are included for information purposes only; cost variances will be reported against Base Year dollars.
3. The O&S costs reflect all work performed during that phase, regardless of the type or source of funding.